

APA

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **34**
- SRM **4.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **30 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.9 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **30 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.04 kg (34.2%)	82 %	4
Grain	Viking Pale Ale malt	1.03 kg (17.3%)	80 %	5
Grain	Oats, Flaked	0.4 kg (6.7%)	80 %	2
Grain	Viking Wheat Malt	1.5 kg (25.1%)	83 %	5
Grain	Viking Vienna Malt	1 kg (16.8%)	79 %	7

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Aroma (end of boil)	Cascade	10 g	15 min	6 %
Whirlpool	Cascade PL	8 g	15 min	5.2 %
Boil	Magnat	10 g	60 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	250 ml	---

Extras

Type	Name	Amount	Use for	Time
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Spice	Skórka pomelo	70 g	Boil	10 min
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